

DATA COLUMN			
1. COUNTY TAX MAP:	08-035.00-032 08-040.00-054 08-040.00-055 08-041.00-027 08-041.00-028 08-041.00-029 08-041.00-030 08-047.00-097		
2. DNREC PROJECT NUMBER:	2016-104		
3. ADDRESS OF SITE:	THOMPSON STATION ROAD NEWARK, DE 19711		
4. SITE COORDINATES AT CENTER OF PROJECT SITE:	LATITUDE: 39.7154 N LONGITUDE: -75.7409 W		
5. ZONING:	EXISTING: SR-SUBURBAN RESERVE PROPOSED: SR-SUBURBAN RESERVE		
LOT AREA:	TAX PARCEL NO. 08-035.00-032 08-040.00-054 08-040.00-055 08-041.00-027 08-041.00-028 08-041.00-029 08-041.00-030 08-047.00-097	EXISTING 87.89 ACS. 52.23 ACS. 29.24 ACS. 47.83 ACS. 91.09 ACS. 111.44 ACS. 66.61 ACS. 50.76 ACS.	PROPOSED 87.89 ACS. 52.23 ACS. 29.24 ACS. 47.83 ACS. 91.09 ACS. 111.44 ACS. 66.61 ACS. 50.76 ACS.
SOURCE OF TITLE:	TAX PARCEL NO. 08-035.00-032 08-040.00-054 08-040.00-055 08-041.00-027 08-041.00-028 08-041.00-029 08-041.00-030 08-047.00-097	DEED RECORD/INSTRUMENT NUMBER 2395-247 1388-207 2417-34 20020814-0078868 808-151 1388-207 808-151 2787-245	
6. EXISTING USE:	STATE PARK		
7. PROPOSED USE:	STATE PARK WITH TRAIL PARKING LOT & IMPROVEMENTS		
8. DATUM:	EXISTING VERTICAL - NAVD 88 HORIZONTAL - NAD 83 BENCHMARK: - EXISTING DRAINAGE MANHOLE INTERSECTION THOMPSON STATION ROAD AND NINE FOOT ROAD ELEV. 342.39		
9. SITE CONDITIONS WITHIN LIMITS OF DISTURBANCE (ACRES)	EXISTING CONDITIONS BUILDING 0.00 ACRES PAVEMENT/CONCRETE 0.91 ACRES TREES 0.09 ACRES OPEN SPACE 10.88 ACRES TOTAL 11.88 ACRES IMPERVIOUS CONDITIONS EXISTING 7.7%	PROPOSED CONDITIONS BUILDING 0.00 ACRES PAVEMENT/CONCRETE 2.04 ACRES TREES 0.00 ACRES OPEN SPACE 9.84 ACRES TOTAL 11.88 ACRES PROPOSED 17.2%	
10. FLOOD PLAIN MAP	PER FIRM MAP NUMBER 10003CD130K, DATED FEBRUARY 4, 2015, THIS SITE LIES WITHIN ZONE X, AREA DETERMINED TO BE OUTSIDE THE ANNUAL 0.2% CHANCE OF FLOODPLAIN.		
11. WATER RESOURCE PROTECTION	ACCORDING TO THE WATER RESOURCE PROTECTION MAP FOR NEW CASTLE COUNTY, MAP 1 OF 3, DATED 1987, LAST REVISED DECEMBER 2011, THIS SITE DOES NOT LAY WITHIN A RECHARGE WATER RESOURCE PROTECTION AREA.		
12. TOTAL LAND DISTURBANCE	THE TOTAL LAND DISTURBANCE PROPOSED BY THIS PLAN IS 11.88± ACRES (517,493± S.F.)		
13. LIMITS OF CONSTRUCTION	THE TOTAL LIMITS OF CONSTRUCTION FOR THE SITE IS 11.88± ACRES (517,493± S.F.)		
14. WETLANDS	THE TOTAL WETLANDS EXISTING WITHIN THE LIMITS OF DISTURBANCE IS 0.00± ACRES (000± S.F.)		
15. PROPOSED DISCHARGE LOCATIONS	1.) POA 1 - ROADSIDE SWALE; CONTRIBUTING LOD AREA = 1.38 ACRES 2.) POA 2 - RECEIVING LIMB TO UNNAMED TRIBUTARY; CONTRIBUTING LOD AREA = 81.23 ACRES 3.) POA 3 - UNNAMED TRIBUTARY; CONTRIBUTING LOD AREA = 1.76 ACRES 4.) POA 4 - EXISTING CULVERT UNDER THOMPSON STATION ROAD; CONTRIBUTING LOD AREA = 15.71 ACRES 5.) POA 5 - EXISTING DRAINAGE INLET AT INTERSECTION; CONTRIBUTING LOD AREA = 1.81 ACRES		
16. OWNER/DEVELOPER:	STATE OF DELAWARE DNREC, DIVISION OF PARKS & RECREATION 89 KINGS HIGHWAY, DOVER, DE 19901 PHONE: 302-739-9210 FAX: 302-739-3817		
17. REVIEW AGENCY:	DNREC, DIVISION OF WATERSHED STEWARDSHIP 89 KINGS HIGHWAY, DOVER, DE 19901 PHONE: (302) 739-9921 FAX: (302) 739-6724		
18. CIVIL ENGINEER:	CENTURY ENGINEERING, INC. 4134 NORTH DUPONT HIGHWAY, DOVER, DE 19901 ALEX SCHMIDT, P.E. PHONE: (302) 734-9188 FAX: (302) 734-4589		

GENERAL NOTES	
1. THE DNREC SEDIMENT AND STORMWATER MANAGEMENT PROGRAM MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.	SUBMITTED TO DNREC. THE PERMITTEE OF RECORD SHALL NOT BE RELIEVED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY DNREC.
2. REVIEW AND APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS. NOTE SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.	11. THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT ASSOCIATED WITH THE PROJECT, INCLUDING, BUT NOT LIMITED TO, PERFORMING WEEKLY SITE INSPECTIONS DURING CONSTRUCTION AND AFTER RAIN EVENTS, AND MAINTAINING WRITTEN LOGS OF THESE INSPECTIONS.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE DELEGATED AGENCY.	12. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL CALL MISS UTILITY AT 811 OR 1.800.282.8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
4. FOLLOWING THE SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.	13. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.	14. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL. C. CHAPTER 60, REGULATIONS GOVERNING THE CONTROL OF WATER POLLUTION, SECTION 9.1.02, KNOWN AS SPECIAL CONDITIONS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES AND DEPARTMENT POLICIES, PROCEDURES, AND GUIDANCE.
6. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHALL BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.	15. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENT TAGS, ETC. SHALL BE PROVIDED TO THE DEPARTMENT OR DELEGATED AGENCY TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN, THE DEPARTMENT OR DELEGATED AGENCY MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH SPECIFICATIONS PROVIDED IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.
7. APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL.	16. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH TRAIL ALIGNMENT AS CAN BE BACKFILLED WITH BASE COURSE STONE AND STABILIZED IN ONE DAY. DO NOT EXCAVATE IF IT WILL NOT BE STABILIZED IN THE SAME DAY.
8. POST CONSTRUCTION VERIFICATION DOCUMENTS ARE TO BE SUBMITTED TO THE DNREC SEDIMENT AND STORMWATER PROGRAM WITHIN 60 DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.	
9. APPROVAL OF A SEDIMENT AND STORMWATER PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.	
10. THE NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NPDES GENERAL PERMIT FOR THIS PROJECT IS 7344. AT ANY TIME THE OWNERSHIP FOR THIS PROJECT CHANGES, A TRANSFER OF AUTHORIZATION OR A CO-PERMITTEE APPLICATION MUST BE	

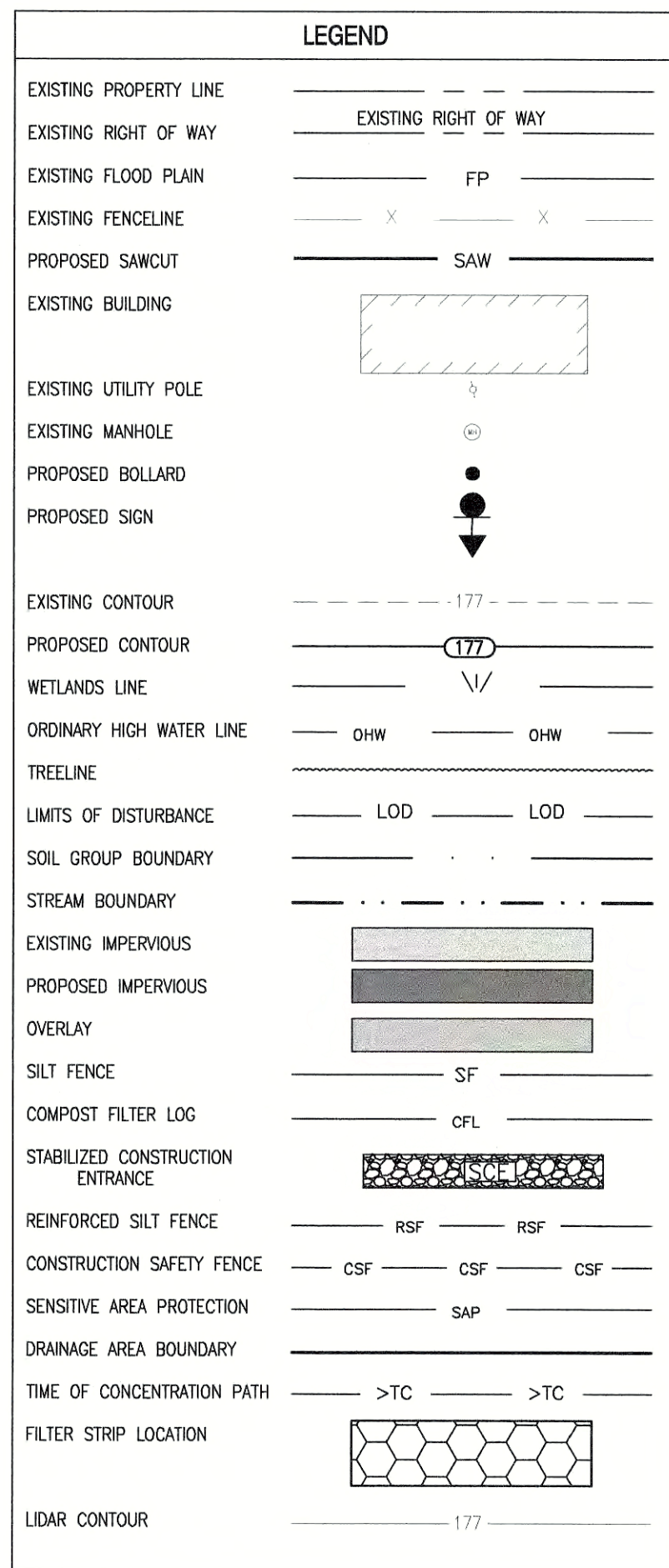
WCCSP TRI-VALLEY TRAIL

SEDIMENT STORMWATER MANAGEMENT PLANS

WHITE CLAY CREEK HUNDRED

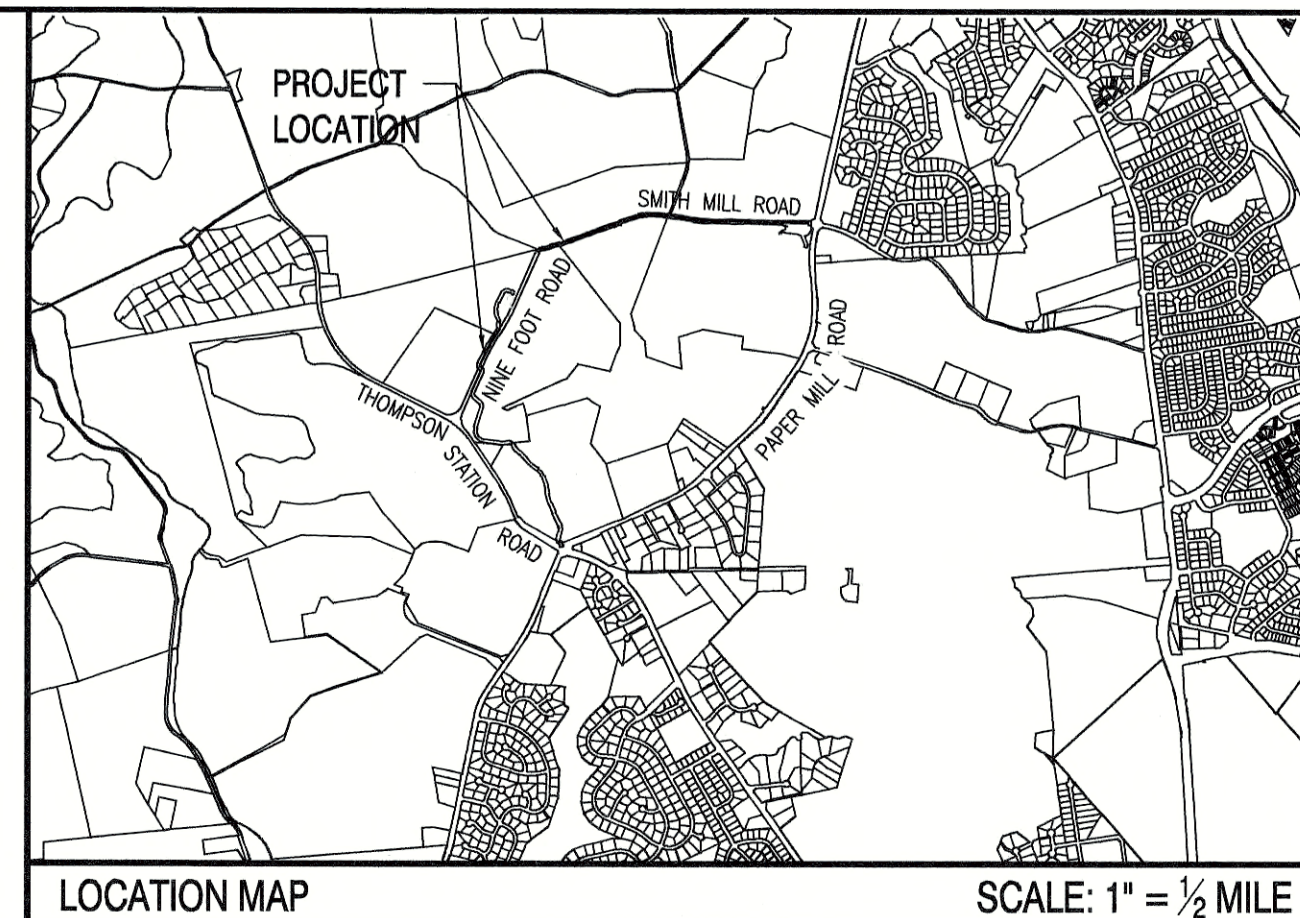
WHITE CLAY CREEK WATERSHED

THOMPSON STATION ROAD, NEWARK, NEW CASTLE COUNTY, DELAWARE



SHEET INDEX

SWM1.0	COVER SHEET
SWM1.1	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
SWM1.2	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
SWM1.3	CONSTRUCTION SITE DETAILS AND NOTES
SWM1.4	CONSTRUCTION SITE DETAILS AND NOTES
SWM1.5	CONSTRUCTION SITE DETAILS AND NOTES
SWM1.6	OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
SWM1.7	OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
SWM1.8	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, FILTER STRIP #1
SWM1.9	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, FILTER STRIP #2
SWM1.10	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, BIOSWALE #1
SWM1.11	BMP CONTRIBUTING DRAINAGE AREA PLAN
SWM1.12	BMP CONTRIBUTING DRAINAGE AREA DETAILS AND NOTES
SWM1.13	PRE-DEVELOPED AREA LOD PLAN



SCALE: 1" = 1/2 MILE

REVISIONS:	BY:	DATE:	DESCRIPTION:
		11/17/16	REVISED PER DNREC COMMENTS

WCCSP TRI-VALLEY TRAIL SEDIMENT STORMWATER MANAGEMENT PLANS

COVER SHEET

State of Delaware DNREC
Sediment and Stormwater Management Plan
No: 2016-104
By: Engineer Michel P. Schmidt
Title: Engineer III
Approval Date: December 14, 2016
Expiration Date: December 14, 2021

OWNER/DEVELOPER CERTIFICATION
I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT RESPONSIBLE PERSONNEL (I.E. BLUE CARD HOLDER) INVOLVED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING PRIOR TO INITIATION OF THE PROJECT, AT A DNREC SPONSORED OR APPROVED TRAINING COURSE FOR THE CONTROL OF EROSION AND SEDIMENT DURING CONSTRUCTION. IN ADDITION, I GRANT THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY THE RIGHT TO CONDUCT ON-SITE REVIEWS, AND I UNDERSTAND MY RESPONSIBILITIES UNDER THE NPDES CONSTRUCTION GENERAL PERMIT, AS REFERENCED ON THIS COVER SHEET.

CYNTHIA A. TODD, PLA
CONSTRUCTION PROJECT ADMINISTRATOR
OFFICE OF DESIGN AND DEVELOPMENT
DNREC - DIVISION OF PARKS AND RECREATION
89 KINGS HIGHWAY, DOVER, DE 19901
PHONE: 302-739-9210
FAX: 302-739-3817

7 Dec 2016
DATE

WETLAND CERTIFICATION
THIS PROPERTY, TAX MAP #S 08-035.00-032, 08-040.00-054, 08-040.00-055, 08-041.00-027, 08-041.00-028, 08-041.00-029, 08-041.00-030 AND 08-047.00-097, HAVE BEEN EXAMINED BY CENTURY ENGINEERING, INC. FOR THE PRESENCE OF WATERS OF THE UNITED STATES, INCLUDING WETLANDS (SECTION 404 AND SECTION 10), STATE SUBSEQUENT LANDS AND STATE REGULATED WETLANDS AS ESTABLISHED BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES IN PLACE AT THE TIME THAT THE INVESTIGATION WAS CONDUCTED. NO WETLANDS WERE FOUND WITHIN THE PROJECT LIMITS.

TJ Austin
ENVIRONMENTAL SCIENTIST
CENTURY ENGINEERING, INC.
4134 NORTH DUPONT HIGHWAY
DOVER, DELAWARE 19901
PHONE: (302) 734-9188
FAX: (302) 734-4589

Nov-18-16
DATE

CERTIFICATION OF PLAN ACCURACY
I, HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.

ALEX SCHMIDT, P.E.
CENTURY ENGINEERING, INC.
4134 NORTH DUPONT HIGHWAY
DOVER, DELAWARE 19901
PHONE: (302) 734-9188
FAX: (302) 734-4589

18-Nov-2016
DATE

SEAL:

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO. WCCSP-7A

DESIGNED BY:
ATF

DRAWN BY:
ATF

CHECKED BY:
AES

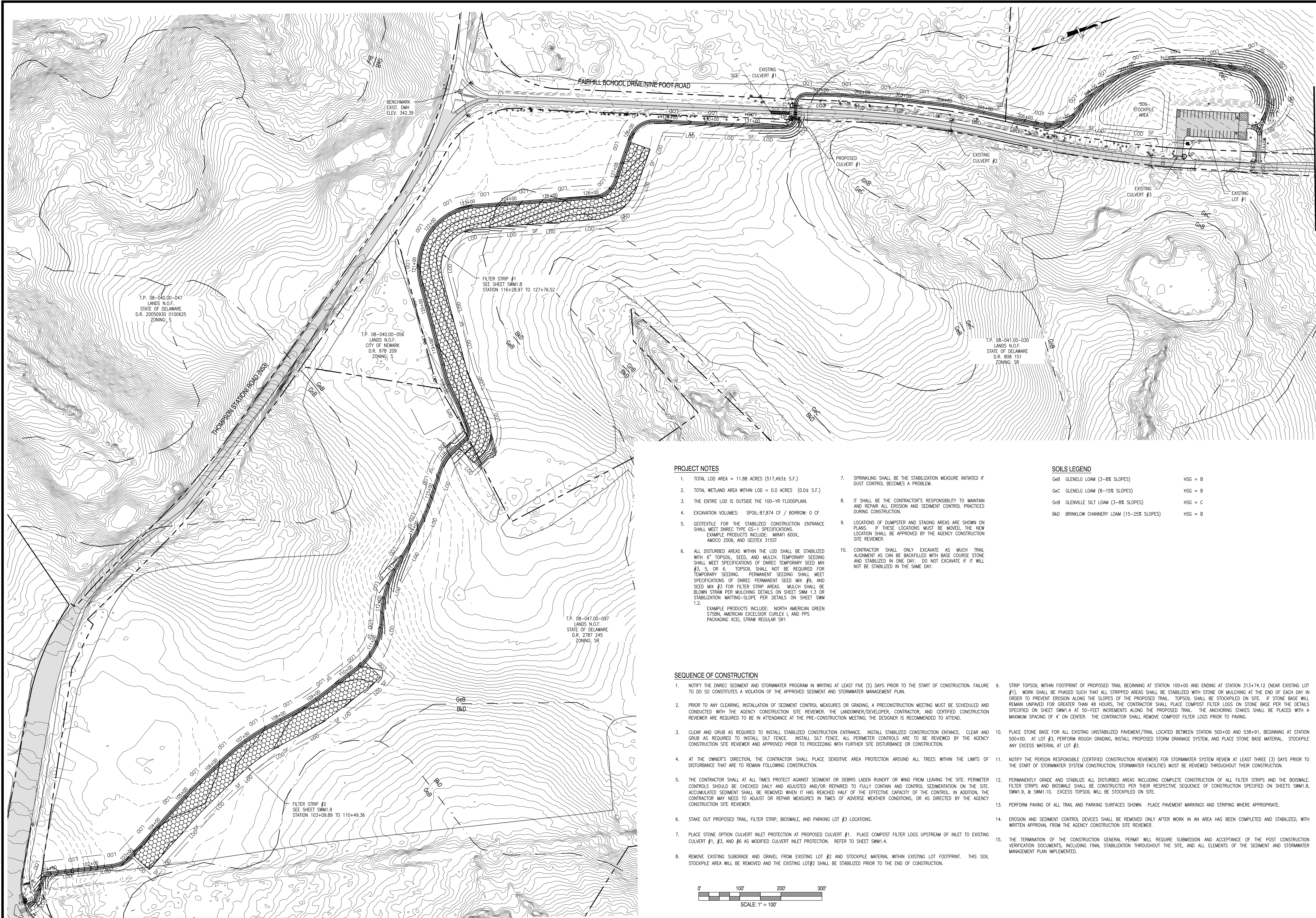
DATE:
NOVEMBER 14, 2016

SCALE:
NOT TO SCALE

SHEET NO.:
SWM1.0

CONTRACT NO.:
2016-WCCSP-100

C:\PROJECTS\125002.DWG (DNREC Civil Engineering Services - 2012)\125002.DWG (Tri-Valley Trail Concept Plan)\SWM1.1 - Construction\DWG.dwg, 12/12/2016 3:38 PM



PROJECT NOTES

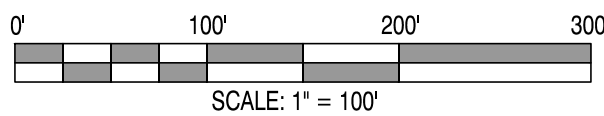
1. TOTAL LOD AREA = 11.88 ACRES (517,493± S.F.)
2. TOTAL WETLAND AREA WITHIN LOD = 0.0 ACRES (0.0± S.F.)
3. THE ENTIRE LOD IS OUTSIDE THE 100-YR FLOODPLAIN.
4. EXCAVATION VOLUMES: SPOIL: 87,874 CF // BORROW: 0 CF
5. GEOTEXTILE FOR THE STABILIZED CONSTRUCTION ENTRANCE SHALL MEET DNREC TYPE GS-1 SPECIFICATIONS. EXAMPLE PRODUCTS INCLUDE: MIRAFI 600X, AMOCO 2006, AND GEOTEX 315ST
6. ALL DISTURBED AREAS WITHIN THE LOD SHALL BE STABILIZED WITH 6" TOPSOIL, SEED, AND MULCH. TEMPORARY SEEDING SHALL MEET SPECIFICATIONS OF DNREC TEMPORARY SEED MIX #3, 5, OR 6. TOPSOIL SHALL NOT BE REQUIRED FOR TEMPORARY SEEDING. PERMANENT SEEDING SHALL MEET SPECIFICATIONS OF DNREC PERMANENT SEED MIX #9, AND SEED MIX #3 FOR FILTER STRIP AREAS. MULCH SHALL BE BLOWN STRAW PER MULCHING DETAILS ON SHEET SWM 1.3 OR STABILIZATION MATING-SLOPE PER DETAILS ON SHEET SWM 1.2. EXAMPLE PRODUCTS INCLUDE: NORTH AMERICAN GREEN S75BN, AMERICAN EXCELSIOR CULREX I, AND PPS PACKAGING XCEL STRAW REGULAR SR1
7. SPRINKLING SHALL BE THE STABILIZATION MEASURE INITIATED IF DUST CONTROL BECOMES A PROBLEM.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION.
9. LOCATIONS OF DUMPSTER AND STAGING AREAS ARE SHOWN ON PLANS. IF THESE LOCATIONS MUST BE MOVED, THE NEW LOCATION SHALL BE APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
10. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH TRAIL ALIGNMENT AS CAN BE BACKFILLED WITH BASE COURSE STONE AND STABILIZED IN ONE DAY. DO NOT EXCAVATE IF IT WILL NOT BE STABILIZED IN THE SAME DAY.

SOILS LEGEND

- | | | |
|-----|--|---------|
| GeB | GLENELG LOAM (3-8% SLOPES) | HSC = B |
| GeC | GLENELG LOAM (8-15% SLOPES) | HSC = B |
| GbB | GLENVILLE SILT LOAM (3-8% SLOPES) | HSC = C |
| BkD | BRINKLOW CHANNERY LOAM (15-25% SLOPES) | HSC = B |

SEQUENCE OF CONSTRUCTION

1. NOTIFY THE DNREC SEDIMENT AND STORMWATER PROGRAM IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRECONSTRUCTION MEETING MUST BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER, THE LANDOWNER/DEVELOPER, CONTRACTOR, AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.
3. CLEAR AND GRUB AS REQUIRED TO INSTALL STABILIZED CONSTRUCTION ENTRANCE. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CLEAR AND GRUB AS REQUIRED TO INSTALL SILT FENCE. INSTALL SILT FENCE. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
4. AT THE OWNER'S DIRECTION, THE CONTRACTOR SHALL PLACE SENSITIVE AREA PROTECTION AROUND ALL TREES WITHIN THE LIMITS OF DISTURBANCE THAT ARE TO REMAIN FOLLOWING CONSTRUCTION.
5. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
6. STAKE OUT PROPOSED TRAIL, FILTER STRIP, BIOSWALE, AND PARKING LOT #3 LOCATIONS.
7. PLACE STONE OPTION CULVERT INLET PROTECTION AT PROPOSED CULVERT #1. PLACE COMPOST FILTER LOGS UPSTREAM OF INLET TO EXISTING CULVERT #1, #3, AND #6 AS MODIFIED CULVERT INLET PROTECTION. REFER TO SHEET SWM1.4.
8. REMOVE EXISTING SUBGRADE AND GRAVEL FROM EXISTING LOT #2 AND STOCKPILE MATERIAL WITHIN EXISTING LOT FOOTPRINT. THIS SOIL STOCKPILE AREA WILL BE REMOVED AND THE EXISTING LOT#2 SHALL BE STABILIZED PRIOR TO THE END OF CONSTRUCTION.
9. STRIP TOPSOIL WITHIN FOOTPRINT OF PROPOSED TRAIL BEGINNING AT STATION 100+00 AND ENDING AT STATION 313+74.12 (NEAR EXISTING LOT #1). WORK SHALL BE PHASED SUCH THAT ALL STRIPPED AREAS SHALL BE STABILIZED WITH STONE OR MULCHING AT THE END OF EACH DAY IN ORDER TO PREVENT EROSION ALONG THE SLOPES OF THE PROPOSED TRAIL. TOPSOIL SHALL BE STOCKPILED ON SITE. IF STONE BASE WILL REMAIN UNPAVED FOR GREATER THAN 48 HOURS, THE CONTRACTOR SHALL PLACE COMPOST FILTER LOGS ON STONE BASE PER THE DETAILS SPECIFIED ON SHEET SWM1.4 AT 50-FOOT INCREMENTS ALONG THE PROPOSED TRAIL. THE ANCHORING STAKES SHALL BE PLACED WITH A MAXIMUM SPACING OF 4' ON CENTER. THE CONTRACTOR SHALL REMOVE COMPOST FILTER LOGS PRIOR TO PAVING.
10. PLACE STONE BASE FOR ALL EXISTING UNSTABILIZED PAVEMENT/TRAIL LOCATED BETWEEN STATION 500+00 AND 538+91, BEGINNING AT STATION 500+00. AT LOT #3, PERFORM ROUGH GRADING, INSTALL PROPOSED STORM DRAINAGE SYSTEM, AND PLACE STONE BASE MATERIAL. STOCKPILE ANY EXCESS MATERIAL AT LOT #2.
11. NOTIFY THE PERSON RESPONSIBLE (CERTIFIED CONSTRUCTION REVIEWER) FOR STORMWATER SYSTEM REVIEW AT LEAST THREE (3) DAYS PRIOR TO THE START OF STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.
12. PERMANENTLY GRADE AND STABILIZE ALL DISTURBED AREAS INCLUDING COMPLETE CONSTRUCTION OF ALL FILTER STRIPS AND THE BIOSWALE. FILTER STRIPS AND BIOSWALE SHALL BE CONSTRUCTED PER THEIR RESPECTIVE SEQUENCE OF CONSTRUCTION SPECIFIED ON SHEETS SWM1.8, SWM1.9, & SWM1.10. EXCESS TOPSOIL WILL BE STOCKPILED ON SITE.
13. PERFORM PAVING OF ALL TRAIL AND PARKING SURFACES SHOWN. PLACE PAVEMENT MARKINGS AND STRIPING WHERE APPROPRIATE.
14. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER.
15. THE TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, AND ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED.



REVISIONS:

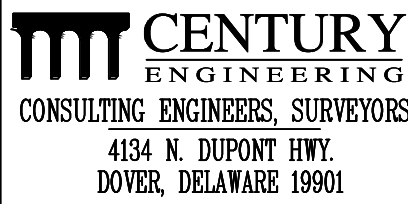
DATE:	DESCRIPTION:	BY:
11/17/16	REVISED PER DNREC COMMENTS	DJD/ATF
12/12/16	REVISED PER DNREC COMMENTS	ATF

WCCSP TRI-VALLEY TRAIL
SEDIMENT STORMWATER MANAGEMENT PLANS

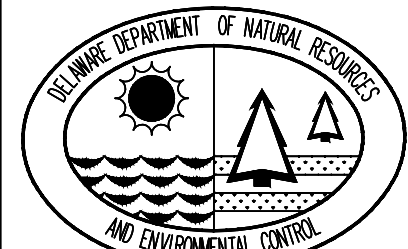
CONSTRUCTION SITE MANAGEMENT PLAN

SEAL:

CIVIL ENGINEER:



CEI CONTRACT NO. WCCSP-7A



DESIGNED BY:

ATF

DRAWN BY:

ATF

CHECKED BY:

AES

DATE:

DECEMBER 12, 2016

SCALE:

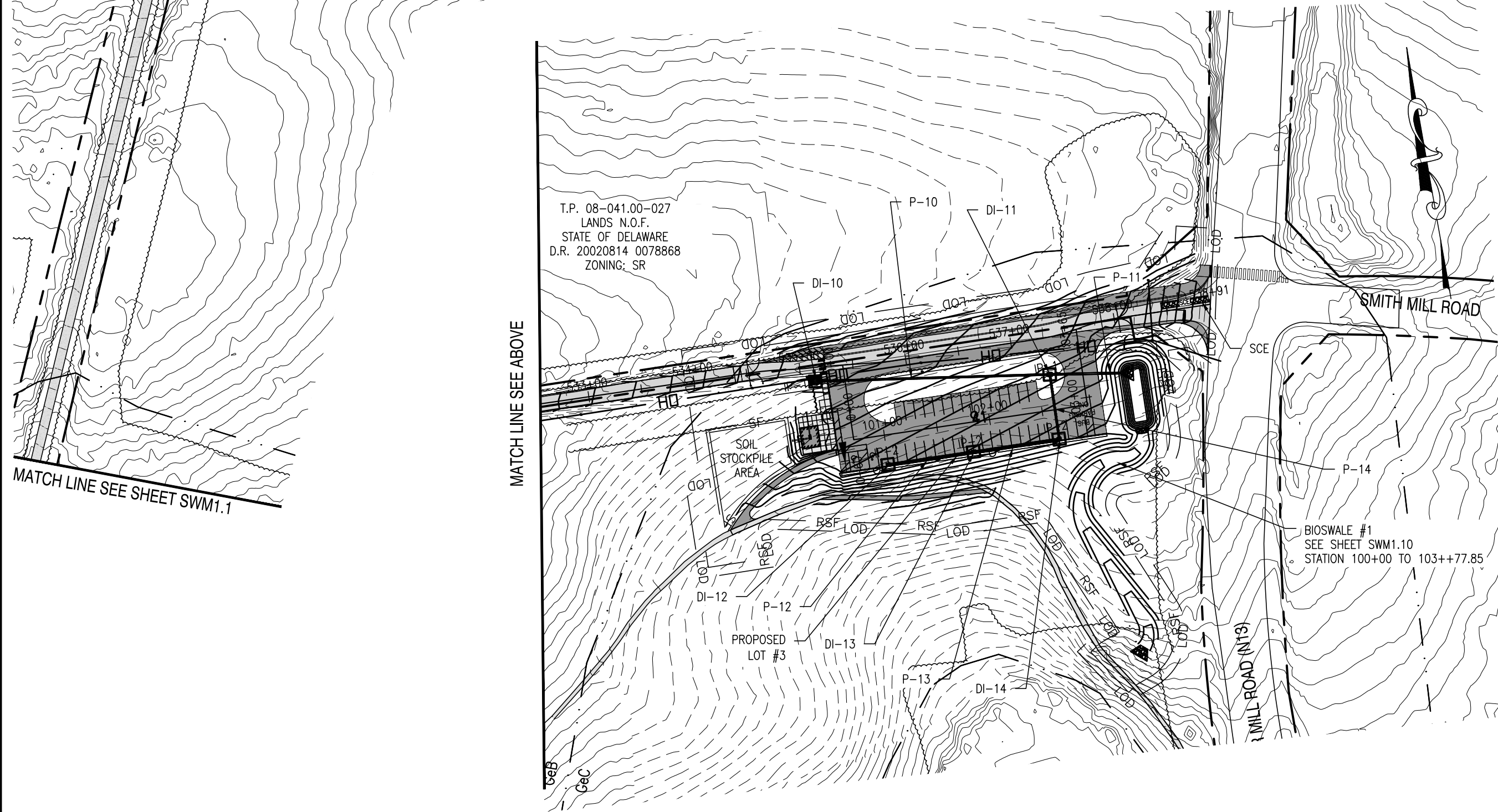
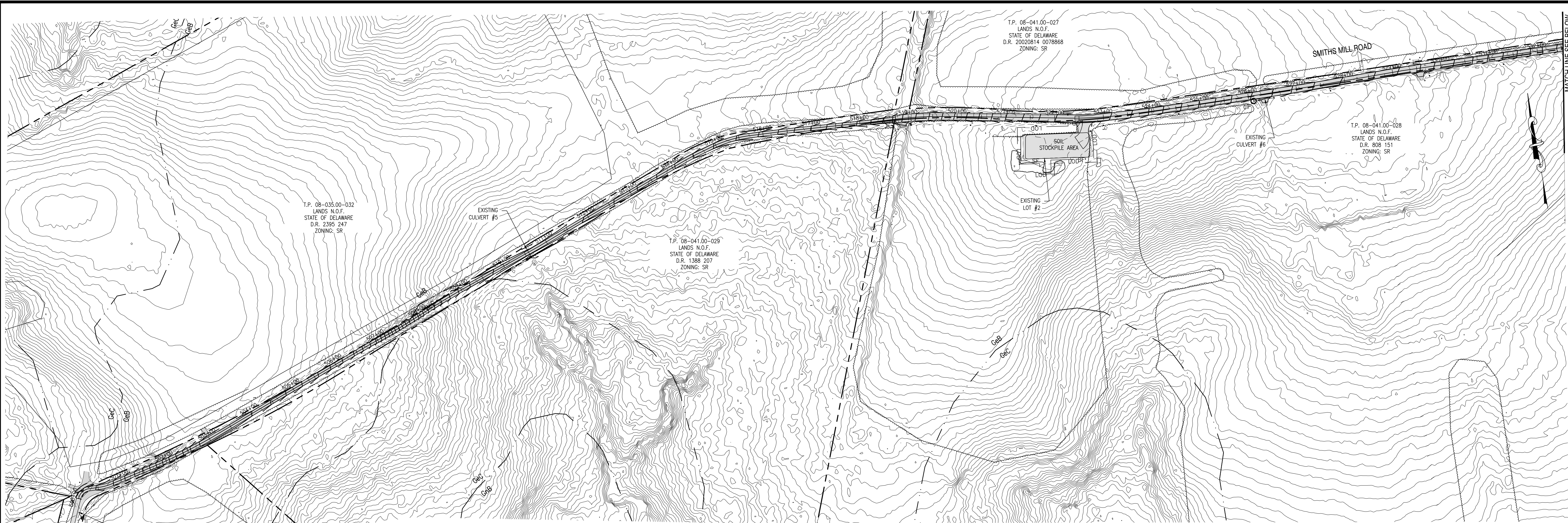
1" = 100'

SHEET NO.:

SWM1.1

CONTRACT NO.:

2016-WCCSP-100



PROJECT NOTES

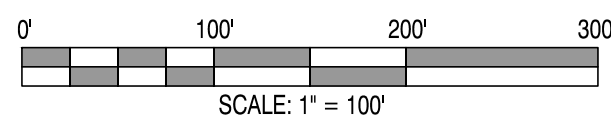
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- TOTAL WETLAND AREA WITHIN LOD = 0.0 ACRES (0.0± S.F.)
- THE ENTIRE LOD IS OUTSIDE THE 100-YR FLOODPLAIN.
- EXCAVATION VOLUMES: SPOIL: 87,874 CF / BORROW: 0 CF
- GEOTEXTILE FOR THE STABILIZED CONSTRUCTION ENTRANCE SHALL MEET DNREC TYPE GS-1 SPECIFICATIONS. EXAMPLE PRODUCTS INCLUDE: MIRAFI 600X, AMOCO 2006, AND GEOTEX 3155T
- ALL DISTURBED AREAS WITHIN THE LOD SHALL BE STABILIZED WITH 6" TOPSOIL, SEED, AND MULCH. TEMPORARY SEEDING SHALL MEET SPECIFICATIONS OF DNREC TEMPORARY SEED MIX #3, 5, OR 6. TOPSOIL SHALL NOT BE REQUIRED FOR TEMPORARY SEEDING. PERMANENT SEEDING SHALL MEET SPECIFICATIONS OF DNREC PERMANENT SEED MIX #9, AND SEED MIX #3 FOR FILTER STRIP AREAS. MULCH SHALL BE BLOWN STRAW PER MULCHING DETAILS ON SHEET SWM 1.3 OR STABILIZATION MATING-SLOPE PER DETAILS ON SHEET SWM 1.2. EXAMPLE PRODUCTS INCLUDE: NORTH AMERICAN GREEN S758N, AMERICAN EXCELSIOR CULREX I, AND PPS PACKAGING XCEL STRAW REGULAR SR1
- SPRINKLING SHALL BE THE STABILIZATION MEASURE INITIATED IF DUST CONTROL BECOMES A PROBLEM.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION.
- LOCATIONS OF DUMPSITE AND STAGING AREAS ARE SHOWN ON PLANS. IF THESE LOCATIONS MUST BE MOVED, THE NEW LOCATION SHALL BE APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
- CONTRACTOR SHALL ONLY EXCAVATE AS MUCH TRAIL ALIGNMENT AS CAN BE BACKFILLED WITH BASE COURSE STONE AND STABILIZED IN ONE DAY. DO NOT EXCAVATE IF IT WILL NOT BE STABILIZED IN THE SAME DAY.

SOILS LEGEND

G6B	GLENELG LOAM (3-8% SLOPES)	HSC = B
G6C	GLENELG LOAM (8-15% SLOPES)	HSC = B
G6B	GLENVILLE SILT LOAM (3-8% SLOPES)	HSC = C
BKD	BRINKLOW CHANNERY LOAM (15-25% SLOPES)	HSC = B

SEQUENCE OF CONSTRUCTION

- NOTIFY THE DNREC SEDIMENT AND STORMWATER PROGRAM IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
- PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRECONSTRUCTION MEETING MUST BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER, THE LANDOWNER/DEVELOPER, CONTRACTOR, AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.
- CLEAR AND GRUB AS REQUIRED TO INSTALL STABILIZED CONSTRUCTION ENTRANCE. INSTALL STABILIZED CONSTRUCTION ENTRANCE. CLEAR AND GRUB AS REQUIRED TO INSTALL SILT FENCE. INSTALL SILT FENCE. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
- AT THE OWNER'S DIRECTION, THE CONTRACTOR SHALL PLACE SENSITIVE AREA PROTECTION AROUND ALL TREES WITHIN THE LIMITS OF DISTURBANCE THAT ARE TO REMAIN FOLLOWING CONSTRUCTION.
- THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
- STAKE OUT PROPOSED TRAIL, FILTER STRIP, BIOSWALE, AND PARKING LOT #3 LOCATIONS.
- PLACE STONE OPTION CULVERT INLET PROTECTION AT PROPOSED CULVERT #1. PLACE COMPOST FILTER LOGS UPSTREAM OF INLET TO EXISTING CULVERT #1, #3, AND #6 AS MODIFIED CULVERT INLET PROTECTION. REFER TO SHEET SWM1.4.
- REMOVE EXISTING SUBGRADE AND GRAVEL FROM EXISTING LOT #2 AND STOCKPILE MATERIAL WITHIN EXISTING LOT FOOTPRINT. THIS SOIL STOCKPILE AREA WILL BE REMOVED AND THE EXISTING LOT#2 SHALL BE STABILIZED PRIOR TO THE END OF CONSTRUCTION.
- STRIP TOPSOIL WITHIN FOOTPRINT OF PROPOSED TRAIL BEGINNING AT STATION 100+00 AND ENDING AT STATION 313+74.12 (NEAR EXISTING LOT #1). WORK SHALL BE PHASED SUCH THAT ALL STRIPPED AREAS SHALL BE STABILIZED WITH STONE OR MULCHING AT THE END OF EACH DAY IN ORDER TO PREVENT EROSION ALONG THE SLOPES OF THE PROPOSED TRAIL. TOPSOIL SHALL BE STOCKPILED ON SITE. IF STONE BASE WILL REMAIN UNPAVED FOR GREATER THAN 48 HOURS, THE CONTRACTOR SHALL PLACE COMPOST FILTER LOGS ON STONE BASE PER THE DETAILS SPECIFIED ON SHEET SWM1.4 AT 50-FOOT INCREMENTS ALONG THE PROPOSED TRAIL. THE ANCHORING STAKES SHALL BE PLACED WITH A MAXIMUM SPACING OF 4' ON CENTER. THE CONTRACTOR SHALL REMOVE COMPOST FILTER LOGS PRIOR TO PAVING.
- PLACE STONE BASE FOR ALL EXISTING UNSTABILIZED PAVEMENT/TRAIL LOCATED BETWEEN STATION 500+00 AND 538+91, BEGINNING AT STATION 500+00. AT LOT #3, PERFORM ROUGH GRADING, INSTALL PROPOSED STORM DRAINAGE SYSTEM, AND PLACE STONE BASE MATERIAL. STOCKPILE ANY EXCESS MATERIAL AT LOT #2.
- NOTIFY THE PERSON RESPONSIBLE (CERTIFIED CONSTRUCTION REVIEWER) FOR STORMWATER SYSTEM REVIEW AT LEAST THREE (3) DAYS PRIOR TO THE START OF STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.
- PERMANENTLY GRADE AND STABILIZE ALL DISTURBED AREAS INCLUDING COMPLETE CONSTRUCTION OF ALL FILTER STRIPS AND THE BIOSWALE. FILTER STRIPS AND BIOSWALE SHALL BE CONSTRUCTED PER THEIR RESPECTIVE SEQUENCE OF CONSTRUCTION SPECIFIED ON SHEETS SWM1.8, SWM1.9, & SWM1.10. EXCESS TOPSOIL WILL BE STOCKPILED ON SITE.
- PERFORM PAVING OF ALL TRAIL AND PARKING SURFACES SHOWN. PLACE PAVEMENT MARKINGS AND STRIPING WHERE APPROPRIATE.
- EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER.
- THE TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, AND ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED.



REVISIONS:

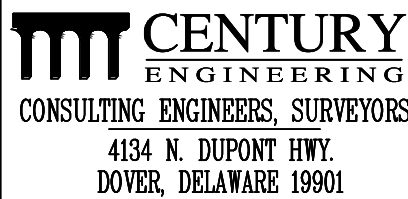
DATE:	DESCRIPTION:	BY:
11/17/16	REVISED PER DNREC COMMENTS	DJD/ATF
12/12/16	REVISED PER DNREC COMMENTS	ATF

WCCSP TRI-VALLEY TRAIL SEDIMENT STORMWATER MANAGEMENT PLANS

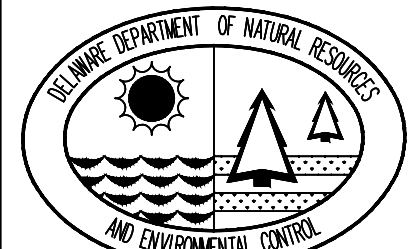
CONSTRUCTION SITE MANAGEMENT PLAN

SEAL:

CIVIL ENGINEER:



CEI CONTRACT NO. WCCSP-7A



DESIGNED BY:

ATF

DRAWN BY:

ATF

CHECKED BY:

AES

DATE:

DECEMBER 12, 2016

SCALE:

1" = 100'

SHEET NO.:

SWM1.2

CONTRACT NO.:

2016-WCCSP-100